A Statistical Note on Australian Banking and Finance Enrolments, Student Load and Composition, 1989-1999

Andrew Worthington and Helen Higgs
School of Economics and Finance, Queensland University of Technology

Abstract
This statistical note examines trends in Australian banking and finance enrolments and student load, along with the composition of enrolments and course completions, over the 1990s. Unpublished higher education statistics from the Department of Employment, Training and Youth Affairs (DETYA) is extracted at the specific and broad field of study level for the purposes of the analysis. Three main trends are noted. First, banking and finance courses are among the fastest growing business-related fields in Australia. On average, enrolments in banking and finance courses increased annually by some 17.94 percent over the period, with postgraduate enrolments growing at an annual rate of 32.34 percent, and undergraduate enrolments at 15.25 percent. Second, while the composition of banking and finance enrolments has changed markedly during the last decade, female participation rates are lower than other business-related fields. Female enrolments currently make up less than one third of all research students in banking and finance. Finally, the share of enrolments by overseas and domestic fee-paying students has also increased. In 1998 only some 37.30 percent of banking and finance course completions were by non-fee-paying students, whereas in all business-related programs this figure is slightly more than 60 percent.

In Australia, as elsewhere, there has been a dramatic increase in the number of students undertaking business-related studies with enrolments growing by nearly eighty-five percent over the period 1989 to 1999 (DETYA 2000). In relative terms, enrolments in undergraduate business-related degrees have generally kept pace with the increase in non-business related disciplines, and still currently account for some twenty-five percent of all undergraduates. However, some thirty percent of all Australian postgraduates are now in business-related fields, increasing from just seventeen percent in 1989. Of equal importance, the increasing enrolments in business-related studies now provide the major portion of fee-paying student income for most Australian universities.

Unfortunately, this national increase is not evenly distributed across States, or between universities within States, nor within particular disciplines within this broad field of study. For example, while the three most populous states of New South Wales, Victoria and Queensland experienced increases in enrolments greater than the national average, enrolments in the remaining States and Territories increased by as little as forty percent and no more than seventy-three percent. Similarly, while enrolments in business-related studies at some tertiary institutions have doubled or even tripled, many others have experienced more modest increases of ten or twelve percent, and some have suffered falls in the order of twelve, twenty-five or even seventy-five percent.

However, some of the most pervasive changes in Australian business-related studies concern the relative positions of the various disciplines. Of these, the most notable examples are economics and accounting. In the case of economics, while postgraduate enrolments have increased by eighty-five percent over the decade, undergraduate enrolments have only grown by thirty percent. In terms of the total undergraduate student population, the percentage of students undertaking a degree in economics has fallen from 2.5 percent in 1989 to less than 1.6 percent in 1999. Similar trends are found both overseas [see, for example, Margo and Siegfried (1996), Alvey and Smith (1999),

Andrew Worthington is a Senior Lecturer in Finance in the School of Economics and Finance at the Queensland University of Technology. Helen Higgs is a Lecturer in Econometrics in the School of Economics and Finance at the Queensland University of Technology.
Correspondence to: Dr. Andrew Worthington, School of Economics and Finance, Queensland University of Technology, GPO Box 2434, Brisbane, QLD 4001. Tel. (07) 3864 2658, Fax (07) 3864 1500, Email a.worthington@qut.edu.au

Salemi and Siegfried (1999) and Siegfried (2000)] and in accounting. For example, where postgraduate enrolments in all business-related degrees have an average annual growth rate of 23 percent over the decade, accounting enrolments have increased by only some 7.5 percent annually. Similarly, whereas undergraduate enrolments in accounting have increased each year by just 2.59 percent over the period 1989-1999, all undergraduate business enrolments have increased by 6.37 percent per year. The decline in the relative popularity of these disciplines is already the subject of increasing attention [see, for instance, Lewis and Norris (1997) and Milmow (1995; 2000)].

In sharp contrast, other business-related disciplines have experienced a meteoric rise in the last decade. One example is studies in banking and finance. Barely discernible as a distinct field of study at the beginning of the decade, enrolments in banking and finance courses have increased dramatically in recent years. This is equally reflected in both the proliferation of separate banking and finance teaching departments at Australian universities, and the reorientation of resources within existing accounting, commerce and economics departments towards offerings in banking and finance. Unfortunately, the strong growth in banking and finance enrolments has allowed academics to avoid some of the collective soul-searching common in the waning disciplines of accounting and economics. For example, concern about the decline in economics degrees has forced economists to confront the persistent gender bias in economics enrolments and performance, appraise the degree of mathematical preparation necessary for undertaking studies in strongly quantitative areas, and discuss the (declining) employment pattern in some graduate destination industries. At least some of these concerns find parallels in banking and finance.

Moreover, there is almost no published information available to banking and finance academics concerning the advancing quantity of enrolments. For instance, while the Department of Employment, Training and Youth Affairs (DETYA) publish some statistics for each 'broad field of study', i.e. 'Business, Administration, Economics' no information is currently made available in published form for each 'specific field of study', i.e. 'Banking and Finance'.[1] This is an important omission on a number of counts, not the least being the value of this information for staff planning and development, promotional activities by educators and professional associations, and for the purposes of comparative performance assessment.

Accordingly, the limited purpose of the present note is to investigate the changing enrolments in banking and finance courses over the last decade. The note itself is divided into three main parts. The first section examines the trends in enrolments and student load over the period 1989 to 1999. The second section discusses the changing profile of banking and finance students over this same period. Both of these sections use DETYA's Enrolment, Student Load and Course Completions Aggregated Datasets for each year since 1989. The note ends with some brief concluding comments in the final section.

(1) Enrolments and student load

Table 1 shows trends in the number of students enrolled in banking and finance over the years 1989 to 1999. Unfortunately, comparable data for 2000 is not yet available. In aggregate terms, the number of students enrolled in banking and finance in Australia has increased from 1,782 in 1989 to 9,063 in 1999. Of these, the largest current enrolment is in Victoria with 3,575 students (39 percent), followed by NSW with 2,615 students (29 percent) and Western Australia's 1,049 students

[1] DETYA broad field of study 'Business, Administration, Economics' (04) is defined as "a summary group of courses that prepare, or develop further the abilities of, individuals to apply the principles and processes of purchasing, selling, producing and interchange of goods, commodities and services in profit and non-profit public and private institutions and agencies and the transformation of limited resources into outputs to satisfy human wants". The specific field of study 'Banking and Finance' (040204) is defined as "courses that prepare, or develop further the abilities of, individuals to undertake the financial management of industrial and commercial enterprises; of commercial, savings, and mortgage banking, and of investment analysis and portfolio selection" (DETYA 2000).

(12 percent), with the remaining States and Territories providing the final 20 percent. Compared with a decade earlier, Western Australia has increased its share of enrolments from less than one percent, while Victoria and NSW have experienced a relative decline (from 44 and 35 percent respectively). In the remaining States and Territories, Queensland's share has increased from zero to 9 percent, while South Australia's and the ACT's share have fallen from 11 and 8 percent respectively. In terms of composition by course type, enrolments in Masters by coursework have increased by more than 2800 percent and bachelors' degrees by more than 300 percent. Overall, there has been a fourfold increase in the number of banking and finance enrolments over the decade.

It should be noted that the annual student data collection provided by universities to DETYA, and upon which these figures rely, is by no means flawless. One major problem is that level of disaggregation possible in each broad field of study is limited by each university's reporting system, as recognised by DETYA (2000):

As institutions have different course structures and recording mechanisms, some are able to provide course data for each specialist area and others are not. Furthermore, some institutions may provide multi/interdisciplinary courses for which a specific minor field of study is not provided. To provide for these circumstances, 'general' categories have been included as minor and major fields of study where appropriate.[2]

The used of these 'General' categories on DETYA's data collection, and in turn on the following analysis, should not be underestimated. In 1999, 20 percent of all business-related enrolments were categorised as 'Business, Administration, Economics – General', and a further 16 percent as 'Business, Administration – General'. A sizeable number of banking and finance majors and specialisations may be included in these categories where the specialist area is not clearly defined. Similarly, it is likely that the specific field of study classification is especially problematic for research degrees. In this case, a thesis or dissertation may be assigned to the major field of study in a department, school or faculty, rather than a specific field of study taught within these administrative units.[3] Nonetheless the data represents, at least in the authors' opinion, the most comprehensive information of this type currently available.

TABLE 1. *Enrolments in banking and finance courses by course type and state, 1989-1999*

Year	Type	NSW	VIC	QLD	WA	SA	ACT	AUST
1989	Doctorate	1	–	–	–	–	–	1
	Masters by research	–	–	–	–	–	–	–
	Masters by coursework	74	–	–	–	–	–	74
	Other postgraduate	29	78	–	18	–	–	125
	Bachelors - Honours	–	–	–	–	–	–	–
	Bachelors - Pass	525	713	–	–	140	140	1518
	Other undergraduate	–	–	–	–	64	–	64
	Total	629	791	–	18	204	140	1782
1990	Doctorate	4	–	–	–	–	–	4
	Masters by research	–	–	–	–	–	–	–
	Masters by coursework	164	–	–	–	–	–	164
	Other postgraduate	36	234	–	13	–	–	283
	Bachelors - Honours	–	–	–	–	–	–	–

[2] For example, some banking and finance courses may be included in 'Business, Administration, Economics – General' (040101) defined as "courses specifically designed to provide major studies in more than one major field of study within the business, administration, economics broad field of study" or 'Business, Administration - General (040201) "courses that prepare, or develop further the abilities of, individuals to apply the principles and processes of purchasing, selling, producing and interchanging of goods, commodities and services in profit making and non-profit making public and private institutions and agencies" (DETYA 2000).

[3] Importantly, "…the level of award to which a course leads does not need to be taken into account, as the classification is designed to be independent of award level" (DETYA 2000).

Year	Type	NSW	VIC	QLD	WA	SA	ACT	AUST
1991	Bachelors - Pass	629	1019	–	–	177	161	1986
	Other undergraduate	–	–	–	–	71		71
	Total	833	1253	–	13	248	161	2508
	Doctorate	6	–	–	–	–	–	6
	Masters by research	–	–	–	–	–	–	–
	Masters by coursework	190	1	–	–	–	–	191
	Other postgraduate	99	318	–	22	–	–	439
	Bachelors - Honours	–	–	–	–	–	–	–
	Bachelors - Pass	487	1263	–	–	182	213	2145
	Other undergraduate	–	–	–	–	83	–	83
	Total	782	1582	–	22	265	213	2864
1992	Doctorate	9	3	1	–	–	–	13
	Masters by research	–	–	–	–	–	–	–
	Masters by coursework	264	14	–	–	–	–	278
	Other postgraduate	84	290	–	49	–	–	423
	Bachelors - Honours	5	0	–	9	–	–	14
	Bachelors - Pass	510	1415	–	–	199	259	2383
	Other undergraduate	–	–	–	–	91	–	91
	Total	872	1722	1	58	290	259	3202
1993	Doctorate	12	4	1	–	–	–	17
	Masters by research	–	–	–	2	–	–	2
	Masters by coursework	381	65	–	–	–	–	446
	Other postgraduate	88	215	–	50	–	–	353
	Bachelors - Honours	2	–	–	5	–	–	7
	Bachelors - Pass	530	1505	–	391	211	249	2886
	Other undergraduate	–	–	–	–	97	–	97
	Total	1013	1789	1	448	308	249	3808
1994	Doctorate	15	5	1	1	–	–	22
	Masters by research		15	–	5	–	–	20
	Masters by coursework	488	167	–	–	–	–	655
	Other postgraduate	90	174	–	72	–	–	336
	Bachelors - Honours	13	–	–	12	–	–	25
	Bachelors - Pass	563	1320	279	464	222	240	3088
	Other undergraduate	–	–	–	–	84	–	84
	Total	1169	1681	280	554	306	240	4230
1995	Doctorate	19	9	2	4	–	–	34
	Masters by research	6	17	–	3	–	–	26
	Masters by coursework	541	212	–	–	–	–	753
	Other postgraduate	72	184	–	87	–	–	343
	Bachelors - Honours	10	–	–	9	–	–	19
	Bachelors - Pass	677	1512	332	479	256	215	3471
	Other undergraduate	–	–	–	–	53	–	53
	Total	1325	1934	334	582	309	215	4699
1996	Doctorate	24	11	–	5	–	–	40
	Masters by research	9	16	–	4	–	–	29
	Masters by coursework	880	271	–	–	–	–	1151
	Other postgraduate	66	170	–	82	–	–	318
	Bachelors - Honours	3	–	–	14	–	–	17
	Bachelors - Pass	642	1838	434	513	362	210	3999
	Other undergraduate	–	–	–	–	69	–	69
	Total	1624	2306	434	618	431	210	5623
1997	Doctorate	29	12	–	3	–	–	44
	Masters by research	6	5	–	3	–	–	14
	Masters by coursework	1092	385	–	8	–	–	1485
	Other postgraduate	64	181	–	79	–	8	332
	Bachelors - Honours	3	–	–	15	–	–	18
	Bachelors - Pass	717	2021	522	690	626	231	4807
	Other undergraduate	–	–	–	–	30	–	30
	Total	1911	2604	522	798	656	239	6730

1998	Doctorate	31	16	–	2	–	–	49
	Masters by research	2	2	–	2	–	–	6
	Masters by coursework	1297	623	23	20	–	16	1979
	Other postgraduate	80	153	2	48	–	5	288
	Bachelors - Honours	4	–	–	18	–	–	22
	Bachelors - Pass	885	2362	580	810	798	230	5665
	Other undergraduate	–	–	7	–	21	–	28
	Total	2299	3156	612	900	819	251	8037
1999	Doctorate	28	15	–	3	–	–	46
	Masters by research	6	1	–	3	–	–	10
	Masters by coursework	1310	656	69	113	–	37	2185
	Other postgraduate	76	198	16	47	–	8	345
	Bachelors - Honours	3	–	–	31	3	–	37
	Bachelors - Pass	1192	2705	694	852	785	194	6422
	Other undergraduate	–	–	10	–	8	–	18
	Total	2615	3575	789	1049	796	239	9063

Notes: 'Doctorate' includes higher doctorates, Doctor of Philosophy and doctorate by coursework, 'Other postgraduate' includes postgraduate qualifying/preliminary courses and graduate diplomas and certificates, 'Other undergraduate' includes all associate degrees, advanced diplomas, enabling courses, non-award and open learning enrolments taught at higher education institutions.

A different perspective of these changes is provided in Table 2, with calculations of the annual percentage change in undergraduate and postgraduate enrolments by state. Across Australia, enrolments in all banking and finance degrees increased annually from more than forty percent in 1990 down to an annual increase of eleven percent in 1994. Across the states, the greatest annual percentage changes have been in Western Australia, with a percentage increase of 672 percent in 1993, Victoria with a 58 percent increase in 1990 and NSW with a 32 percent increase, also in 1990. Nevertheless, declining enrolments have also been experienced in several years and states. Western Australia's enrolments fell by nearly 28 percent in 1990 and South Australia and the ACT fell by nearly 3 percent and 5 percent respectively in 1999.

TABLE 2. *Percentage changes in banking and finance enrolments by course type and state, 1989-1999*

Year	Enrolment	NSW	VIC	QLD	WA	SA	ACT	AUST
1990	Postgraduate	96.15	200.00	–	-27.78	–	–	125.50
	Undergraduate	19.81	42.92	–	–	21.57	15.00	30.03
	Total	32.43	58.41	–	-27.78	21.57	15.00	40.74
1991	Postgraduate	44.61	36.32	–	69.23	–	–	41.02
	Undergraduate	-22.58	23.95	–	–	6.85	32.30	8.31
	Total	-6.12	26.26	–	69.23	6.85	32.30	14.19
1992	Postgraduate	22.71	-3.76	–	163.64	–	–	14.47
	Undergraduate	4.72	12.03	–	–	9.43	21.60	11.04
	Total	11.51	8.85	–	163.64	9.43	21.60	11.80
1993	Postgraduate	33.43	-7.49	–	-1.72	–	–	13.32
	Undergraduate	3.92	6.36	–	–	6.21	-3.86	20.57
	Total	16.17	3.89	–	672.41	6.21	-3.86	18.93
1994	Postgraduate	25.47	27.11	–	57.89	–	–	28.24
	Undergraduate	6.23	-12.29	–	18.67	-0.65	-3.61	6.34
	Total	15.40	-6.04	–	23.66	-0.65	-3.61	11.08
1995	Postgraduate	6.93	16.90	100.00	14.44	–	–	11.06
	Undergraduate	20.25	14.55	19.00	3.23	0.98	-10.42	11.10
	Total	13.34	15.05	19.29	5.05	0.98	-10.42	11.09
1996	Postgraduate	51.54	10.90	-100.00	1.94	–	–	32.34
	Undergraduate	-5.17	21.56	30.72	7.10	39.48	-2.33	15.44
	Total	22.57	19.23	29.94	6.19	39.48	-2.33	19.66

1997	Postgraduate	21.59	24.57	–	2.86	–	–	21.74
	Undergraduate	11.68	9.96	20.28	34.50	52.20	10.00	18.90
	Total	17.67	12.92	20.28	29.13	52.20	13.81	19.69
1998	Postgraduate	18.43	36.19	–	-16.67	–	162.50	23.82
	Undergraduate	23.43	16.87	12.45	17.39	24.85	-0.43	17.70
	Total	20.30	21.20	17.24	12.78	24.85	5.02	19.42
1999	Postgraduate	0.64	9.57	240.00	118.89	–	114.29	11.90
	Undergraduate	34.69	14.52	19.93	5.19	-3.17	-15.65	13.12
	Total	13.75	13.28	28.92	16.56	-2.81	-4.78	12.77

Notes: 'Postgraduate' includes doctorates, masters by research and coursework, other postgraduate courses and Bachelors Honours. The percentage change for 1989 is not calculated due to lack of comparable data for 1988.

Table 3 presents average annual percentage changes in banking and finance enrolments and the overall percentage change in enrolments over the period by state. For the purposes of comparison, these statistics are also calculated for all business-related degrees. Annual percentage changes from Table 3 indicate that, on average, enrolments in banking and finance courses increased annually by some 17.94 percent over the period, with postgraduate enrolments growing at an annual rate of 32.34 percent, and undergraduate enrolments at 15.25 percent. Average growth rates in all enrolments have been highest in Western Australia (97.09 percent), Queensland (23.13 percent) and South Australia (15.81 percent), albeit from very small bases, and lowest in the ACT (6.27 percent), Victoria (17.31 percent) and NSW (15.70 percent). And without exception, postgraduate enrolments in each state have experienced higher growth than undergraduate enrolments. For example, undergraduate enrolments in NSW grew annually by 9.70 percent when postgraduate enrolments grew at 32.15 percent, while in Queensland postgraduate enrolments averaged 80 percent growth while undergraduate enrolments averaged 23.13 percent.

This disparity between postgraduate and undergraduate enrolments is reflected in the volatility of growth rates. The standard deviation of postgraduate enrolments ranged between 27.27 percent in NSW and 170.88 percent in Queensland. On the other hand, the standard deviation of undergraduate enrolments ranged between 10.21 percent in Queensland and 18.14 percent South Australia. Thus, postgraduate enrolments have been both higher and more volatile than undergraduate enrolments over the decade. Overall, enrolments in all Australian banking and finance degrees have increased by more than four hundred percent over the decade, comprising a twelvefold increase in postgraduates and a threefold increase in undergraduates. The largest overall increases in enrolments have been in states with low enrolments in 1989, namely Western Australia (5727 percent) and South Australia (290 percent), while the established programs in NSW and Victoria have experienced more modest overall increases of 315 and 352 percent respectively.

Table 3 also includes comparative overall and average growth rates for all Australian business-related degrees. These figures therefore include the disciplines of general business, economics, accounting, management, international business, marketing, hotel and hospitality management, industrial relations, and human resource management. Across all states, these figures generally indicate that the specific field of study in banking and finance has significantly higher growth rates than the broad field of business study. Postgraduate enrolments in all business-related degrees have grown on average by nearly 23 percent over the period 1989-1999, while banking and finance enrolments have increased on average by 32.34 percent. Similarly, undergraduate enrolments in banking and finance have increased by 15.25 percent per annum over the period, while all undergraduate business enrolments have increased by only 6.37 per annum. Over the entire period the number of students enrolled in postgraduate business offerings have slightly more than tripled, when banking and finance enrolments have increased more than twelvefold, and the percentage change in undergraduate banking and finance enrolments is more than five times the change for all

business disciplines. These findings generally hold by state as well as nationally, though one exception is the ACT where the overall change in all business enrolments is approximately the same as the change in banking and finance enrolments.

TABLE 3. *Percentage changes in banking and finance and business enrolments by state, 1990-1999*

Field		Enrolment	NSW	VIC	QLD	WA	SA	ACT	AUST
Banking and finance	Average annual change	Postgraduate	32.15	35.03	80.00	38.27	–	138.39	32.34
		Standard deviation	27.27	59.87	170.88	62.96	–	34.09	34.17
		Undergraduate	9.70	15.04	20.48	14.35	15.78	4.26	15.25
		Standard deviation	15.65	14.02	10.21	12.05	18.14	14.34	8.03
		Total	15.70	17.31	23.13	97.09	15.81	6.27	17.94
		Standard deviation	9.75	17.08	5.86	208.74	18.41	13.83	8.83
	Overall change	Postgraduate	1268.27	1015.38	–	994.44	–	–	1211.50
		Undergraduate	127.05	279.38	–	–	288.73	38.57	307.08
		Total	315.74	351.96	–	5727.78	290.20	70.71	408.59
All business	Average annual change	Postgraduate	25.91	21.15	26.05	17.53	17.11	19.40	22.84
		Standard deviation	31.20	32.68	33.25	36.73	31.64	33.41	32.25
		Undergraduate	4.63	5.69	5.01	4.47	3.49	5.09	4.95
		Standard deviation	4.07	3.92	8.00	4.95	12.56	6.92	4.47
		Total	7.15	6.59	6.58	4.97	4.09	5.68	6.37
		Standard deviation	3.68	4.03	7.44	5.08	10.45	6.06	4.20
	Overall change	Postgraduate	334.62	183.25	330.22	101.63	87.09	140.55	232.40
		Undergraduate	56.18	72.93	59.15	53.32	32.36	61.16	60.88
		Total	98.72	88.28	85.10	60.72	42.22	71.21	84.40

Notes: 'Business' includes all enrolments in DETYA broad field of study category 'Business, , Administration, Economics' (including general business, accounting, economics, finance, marketing, general management, public administration and hotel and hospitality management); 'Average' is the average annual change, 'Overall' is for the period 1989 to 1999. Business total for Australia (AUST) excludes enrolments from Northern Territory (1989-99) and multi-state institutions (ie. Australian Catholic University) (1995-99) and includes Tasmania.

These figures are suggestive of the fact that the relative importance of the banking and finance discipline (at least in terms of enrolments) has increased relative to other business related studies. In fact, the share of total enrolments in banking and finance degrees of all types within the business-related field has increased from less than two percent in 1989 to slightly more than five percent in 1999. Also, since enrolments in banking and finance postgraduate offerings have generally grown faster than the undergraduate enrolments, the share of all postgraduate business enrolments held by banking and finance has increased continuously over the decade, from 1.59 percent in 1989 to some 6.28 percent in 1999.

However, the relative increase in students enrolled in banking and finance degrees vis-à-vis other business-related study is generally less noticeable when changes in student load, that is, changes in all students enrolled in banking and finance units, are examined. This is indicative of the fact that while banking and finance units are taken by a variety of students who are mostly studying for degrees other than banking and finance (especially accounting), a substantial proportion of most banking and finance programs is composed of units in other business disciplines. This is especially the case for undergraduates where students usually commence their study of banking and finance in second year, and then only after several units in accounting, economics and statistics, amongst others, have been completed.

TABLE 4. *Equivalent full-time student unit (EFTSU) load for all banking and finance and business units by state, 1989-1999*

	Year	NSW	VIC	QLD	WA	SA	ACT	AUST	BUS
Equivalent full-time student unit (EFTSU)	1989	402	603	–	6	123	115	130	67537
	1990	609	942	–	6	169	138	175	77303
	1991	539	1164	–	10	194	185	204	85468
	1992	635	1260	1	30	199	230	229	87014
	1993	697	1286	1	388	209	213	597	87973
	1994	794	1149	220	465	212	219	897	88992
	1995	875	1408	260	510	228	201	998	96038
	1996	1095	1786	381	541	315	201	1237	107480
	1997	1371	2063	459	735	521	219	1715	117711
	1998	1579	2546	536	826	646	227	2007	124933
	1999	1898	2905	658	942	640	209	2240	130083
		NSW	VIC	QLD	WA	SA	ACT	AUST	SHARE
Percentage change in equivalent full-time student unit (EFTSU)	1989	–	–	–	–	–	–	–	0.19
	1990	51.68	56.13	–	-10.00	37.07	19.81	34.80	0.22
	1991	-11.43	23.62	–	78.95	14.81	34.04	16.88	0.23
	1992	17.77	8.24	–	195.55	2.32	24.31	12.09	0.26
	1993	9.76	2.02	–	1202.77	4.94	-7.05	160.56	0.67
	1994	13.86	-10.66	–	19.89	1.87	2.42	50.29	1.00
	1995	10.23	22.57	18.26	9.68	7.51	-7.84	11.27	1.03
	1996	25.15	26.84	46.66	6.09	38.05	-0.06	23.96	1.15
	1997	25.18	15.52	20.51	35.92	65.35	8.80	38.68	1.45
	1998	15.19	23.43	16.80	12.35	23.83	3.79	17.03	1.60
	1999	20.18	14.08	22.72	14.14	-0.92	-8.19	11.59	1.72
Annual		17.76	18.18	24.99	156.53	19.48	7.00	37.71	–
Overall		372.71	381.49	–	14978.51	418.31	81.48	1627.26	–

Notes: Total for Australian business units (BUS) excludes EFTSU from Northern Territory (1989-99) and multi-state institutions (i.e. Australian Catholic University) (1995-99) and includes Tasmania. Business (BUS) includes all EFTSU in DETYA broad field of study category 'Economics, Administration and Management' (including general business, accounting, economics, marketing, general management, public administration and hotel and hospitality management). SHARE is the percentage of business EFTSU in accounting units. 'Average' is the average annual change, 'Overall' is for the period 1989 to 1999.

Table 4 presents equivalent full-time student units (EFTSU) by state over the period 1989 to 1999. Both EFTSU and the annual change in EFTSU are included. For most states, the annual growth rate in banking and finance student load (Table 4) has been only marginally higher than the growth rates in banking and finance enrolments (Table 3). For example, in NSW growth in load averaged 17.76 percent over the period while growth in enrolments averaged 15.70 percent. Similar findings hold for Victoria (18.18 percent in load and 17.31 percent in enrolments), Queensland (24.99 and 23.13), South Australia (19.48 and 15.81) and the ACT (6.27 and 7.00). The exception is Western Australia where growth in load averaged 156.53 percent and enrolments 97.09 percent.

The reflection that most banking and finance courses include a relatively smaller proportion of units in banking and finance and that few students enrolled in other fields undertake study in banking and finance is brought to light by the figures in Table 4. For example, while the share of total business enrolments held by banking and finance courses is now more than five percent, the share of business load held in banking and finance units is only some 1.72 percent. This is a very different situation to the waning disciplines of economics and finance where the share of enrolments and load, though declining, are approximately the same. Accordingly, the relative decline in economics, and to a lesser extent, accounting, has been tempered to some extent by growth in student load

deriving their role in providing 'service units'. This is not the case in banking and finance where the increase in load is primarily derived from the increase in banking and finance enrolments.

Examination of banking and finance enrolments and student load over the period of the 1990s provides evidence of several clear trends. To start with, banking and finance enrolments in Australia and most states have grown annually by nearly eighteen percent per annum over the period, and there are now five times more students enrolled in banking and finance courses than at the beginning of the decade. Likewise, banking and finance load has also increased, growing by some 38 percent each year and nearly eighteen times higher than in 1989. These figures are all the more remarkable considering that only NSW and Victoria had well-established and broad offerings in banking and finance at the beginning of the decade. However, banking and finance still represents a relatively minor discipline in terms of total business enrolments and student load. For example, while almost one-fifth of business-related student load is in accounting and some twelve percent in economics, less than two percent is in banking and finance. Likewise, despite more than doubling since 1989 only one in twenty business-related students are now enrolled in banking and finance courses. This places it well behind accounting, management, marketing, and even economics, notwithstanding the latter's decade of debilitating decline.

(2) Composition

An equally important concern, if not more so, than the level of banking and finance enrolments and student load is an understanding of the composition of banking and finance courses and units. Justification is not hard to find, keeping in mind the prospects for revenue raising by banking and finance departments and desired equity outcomes. Four issues are thought of most interest in the Australian tertiary sector. These are: (i) an examination of the purported gender bias of banking and finance studies, especially at the postgraduate level; (ii) the participation of Aboriginal and Torres Strait Islanders in banking and finance courses at all levels; (iii) enrolments by overseas students and the implications for teaching pedagogy and assessment styles; and (iv) prospects for growth in fee-paying income for both overseas and domestic postgraduate and undergraduate students.

The first issue addressed is the gender balance in banking and finance education. Table 5 provides the percentage of female banking and finance enrolments by course type for the period 1989 to 1999. In 1989 some 31.48 percent of all banking and finance enrolments were female students, and this had increased to 42.06 percent in 1999. By way of comparison, the female participation rate in hotel and hospitality management was 69.53 percent in 1999, 54.39 percent in marketing, 50.55 percent in general business studies, 48.60 percent in accounting, 42.88 percent in management, and only 40.27 percent in economics. On this basis, it would appear that accusations of a persistent gender bias in banking and finance education may not lack foundation.

TABLE 5. *Percentage of female enrolments in banking and finance courses by type, 1989-1999*

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Doctorate	0.00	0.00	33.33	15.38	17.65	18.18	20.59	22.50	25.00	36.73	32.61
Masters by research	–	–	–	–	0.00	5.00	11.54	20.69	14.29	33.33	20.00
Masters by coursework	12.16	33.33	15.71	21.22	21.52	23.51	24.97	30.23	33.74	36.23	37.30
Other postgraduate	21.60	22.60	24.15	24.59	23.23	30.95	39.65	43.08	43.98	39.58	44.35
Bachelors - Honours	–	–	–	42.86	0.00	52.00	26.32	29.41	22.22	9.09	32.43
Bachelors - Pass	32.74	35.15	35.29	36.47	36.94	38.34	40.13	43.04	43.23	45.35	43.76
Other undergraduate	43.75	49.30	45.78	51.65	44.33	42.86	39.62	40.58	36.67	42.86	27.78
Total	31.48	33.29	32.58	33.95	33.88	35.37	37.31	40.09	40.91	42.73	42.06

Notes: 'Doctorate' includes higher doctorates, Doctor of Philosophy and doctorate by coursework, 'Other postgraduate' includes postgraduate qualifying/preliminary courses and graduate diplomas and certificates, 'Other undergraduate' includes all associate degrees, advanced diplomas, enabling courses, non-award and open learning enrolments taught at higher education institutions. En dash indicates zero enrolments in category.

However, the figures provided in Table 5 also indicate that participation by females in banking and finance varies dramatically by course type. The most notable improvements appear to have been in enrolments in Masters by coursework and other postgraduate programs. In 1989 slightly more than one-fifth of other postgraduate students and one-tenth of Masters by coursework students were female, but by 1999 this had increased to nearly 45 percent in the first instance and 37 percent in the second. The least improvement is in banking and finance research programs, encompassing doctorates, Masters by research and Honours. In 1999 less than one-third of banking and finance doctoral and Honours candidates and one-fifth of Masters by research candidates were female. Of course, these figures concern only enrolments and may not be indicative of completion rates by female candidates and whether this is higher or lower than their male counterparts. Regardless, female participation rates in all aspects of banking and finance education is substantially lower than most other business-related disciplines, and is only marginally higher than that found in economics.

A second issue is the level of participation by Aboriginal and Torres Strait Islanders (ABTS) in banking and finance courses. Table 6 lists enrolments in all banking and finance courses by Aboriginal and Torres Strait Islanders over the 1990s. Notwithstanding the high number of enrolments where ethnic background is not declared, the percentage of enrolments by ABTS students has grown only marginally. In 1989, ABTS students amounted for some 0.17 percent of banking and finance enrolments, and this had increased to 0.22 percent in 1999. While this is obviously below the levels of participation by these students in other faculties, especially health and education, it is only slightly more than half of the ABTS participation rate in other business-related studies (0.43 percent).

TABLE 6. *Percentage of banking and finance enrolments by Aboriginal and Torres Strait Islanders (ABTS), 1989-1999*

	Aboriginal or Torres Strait Islander	Non-Aboriginal or Torres Strait Islander	Ethnic background not defined	Total enrolments (including not defined)	Percent Aboriginal or Torres Strait Islander
1989	3	1738	41	1782	0.17
1990	11	2473	24	2508	0.44
1991	15	2783	66	2864	0.53
1992	5	3193	4	3202	0.15
1993	2	3791	15	3808	0.05
1994	9	4192	29	4230	0.21
1995	16	4665	18	4699	0.34
1996	17	5589	17	5623	0.30
1997	15	6700	15	6730	0.22
1998	16	7965	56	8037	0.20
1999	20	9032	11	9063	0.22

Notes: Calculation of percentage share of Aboriginal or Torres Strait Islander does not include undefined ethnic background enrolments.

A third issue of interest is the level of participation of overseas students in Australian banking and finance courses. There are at least two dimensions at play in this regard. In the first instance, overseas students are an important, though not the exclusive, source of fee-paying income for Australian banking and finance departments. In the second, the increasing participation of overseas students has important implications for banking and finance pedagogy and teaching styles, including commitments to internationalisation of course content, the provision of enabling and preparatory programs for postgraduate study, and other support schemes. In the longer term, the role of graduate teaching assistants and the changing emphasis of alumni programs is highlighted.

TABLE 7. *Institutional enrolments and percentage of overseas students, 1989-1999*

		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total enrolments	First quartile	81	65	108	42	121	51	30	34	45	86	29
	Second quartile	137	161	213	204	245	240	222	160	152	194	201
	Third quartile	143	183	265	255	303	306	311	383	422	481	476
	Fourth quartile	409	661	819	871	834	837	956	1050	1145	1252	1391
	Largest enrolments	Canberra VUT Monash	RMIT Monash	UTS Monash	UniSA RMIT	RMIT Monash	UniSA RMIT	RMIT Monash	Curtin RMIT	Monash Curtin	RMIT Monash	Curtin RMIT
Percentage of overseas enrolments	First quartile	1.61	0.14	2.05	2.89	3.42	6.54	5.60	9.57	12.89	15.34	17.52
	Second quartile	4.76	5.99	7.47	9.35	12.50	16.43	14.35	18.69	22.45	25.89	25.49
	Third quartile	5.98	9.80	12.50	17.14	18.15	26.89	28.69	33.10	38.03	41.71	45.14
	Fourth quartile	11.49	15.28	17.34	30.37	44.81	41.83	41.58	45.18	51.98	59.73	65.59
	Highest proportions of overseas enrolments	VUT RMIT Monash	RMIT Monash Canberra	UTS Monash Monash	Monash RMIT Monash	Curtin Macquarie Deakin	Macquarie Curtin Deakin	Curtin Canberra Macquarie	Curtin Curtin Macquarie	Curtin RMIT RMIT	Monash Curtin Curtin	RMIT Monash Curtin

Notes: Current institutional names were used for pre-Dawkins' component institutions: VUT (1989) is the Chisholm Institute of Technology and Monash (1989) is the Footscray Institute of Technology.

Table 7 details the proportion of enrolments accounted for by overseas students at all levels over the sample period. Table 7 also includes details concerning the size of banking and finance enrolments by all students for each institution. In 1989 overseas students represented some 4.76 percent of total enrolments in banking and finance for the median tertiary institution. However, one quarter of institutions had overseas enrolments in excess of 5.98 percent, with a further quarter having less than 1.61 percent of their enrolment provided by overseas students. By 1999, the median level of overseas student enrolments was 25.49 percent, with twenty-five percent of Australian banking and finance departments having overseas enrolment rates above 45.14 percent, fifty percent between 17.52 percent and 45.14 percent, and a final twenty-five percent with less than 17.52 percent. By way of comparison, overseas student enrolments in all business-related studies were 8.55 percent in 1989, 13.03 percent in 1993, 17.94 percent in 1996 and 24.50 percent in 1999. Institutions with higher proportions of overseas student enrolments include Curtin, Monash and RMIT.

The high participation rates by overseas students are generally reflected in the total enrolments by each institution, with Curtin, Monash and RMIT consistently the largest enrollers of banking and finance students since 1993. Enrolments in the largest twenty-five percent of institutions have steadily increased over the decade, with the cut-off for the third quartile growing from 143 students in 1989 to 476 in 1999. Similarly, the median enrolment has also risen over the decade, though with 201 students this is still lower than in the period 1991-1995. However, the first quartile of enrolling institutions appears to have steadily fallen. In 1989 twenty-five percent of institutions had enrolments below 81 students and in 1999 this had fallen to just 29. It should be noted, however, that the number of institutions offering banking and finance courses has also steadily increased over the decade and many of these emerging programs have only been available in the last few years. For example, only eight institutions offered distinct banking and finance courses in 1989 compared to twenty-six in 1999.

TABLE 8. *Percentage of non-fee paying and fee-paying domestic and overseas students in banking and finance completions, 1989-1998*

	Non-fee paying domestic students	Fee-paying overseas students	Fee-paying domestic students	Total
1989	100.00	0.00	0.00	100.00
1990	98.59	0.35	1.06	100.00
1991	77.67	3.14	19.18	100.00
1992	54.83	3.75	41.42	100.00
1993	62.84	11.16	25.99	100.00
1994	69.49	22.03	8.48	100.00
1995	58.02	29.54	12.44	100.00
1996	53.31	34.88	11.81	100.00
1997	42.93	38.99	18.07	100.00
1998	37.30	47.35	15.34	100.00

Figures currently unavailable for 1999. Columns may not sum to 100 due to rounding.

An alternative perspective on revenue raising is given in Table 8 where the share of banking and finance completions by overseas fee-paying students and domestic postgraduate fee-paying students is provided. Unfortunately, fee-paying students are not identified in the enrolment data provided by DETYA, and the fee-paying identifier for completions is only current to 1998. Equally important, the proportion of fee-paying students provided in Table 8 lag actual fee-paying enrolments by several years. Nonetheless, the figures in the table suggest that the proportion of fee-paying students in banking and finance courses has steadily increased over the decade. In 1990 overseas fee-paying students represented some 0.35 percent of all banking and finance course completions, and by 1998 this had increased to 47.35 percent. These figures are generally much higher than the share of overseas fee-paying completions in all business-related disciplines: namely, 1.05 percent in 1989, 12.01 percent in 1993, 19.42 percent in 1996 and 26.81 percent in 1998.

Table 8 also presents the percentage of banking and finance course completions for fee-paying domestic postgraduate students. In 1990 1.06 percent of completions were by fee-paying domestic students, and this had risen to 15.34 percent in 1998. However, unlike the situation with fee-paying overseas students, the share of banking and finance completions held by fee-paying postgraduates are only slightly more than other business-related disciplines. In 1989 1.20 percent of all business-related completions were fee-paying domestic students, 7.71 percent in 1993, 11.01 percent in 1996 and 12.59 percent in 1998. Combining the figures in Table 8 together, the share of non-fee-paying Australian banking and finance completions, both postgraduate and undergraduate, has fallen from 100 percent in 1989 to 37.30 percent in 1998. By way of comparison, the share of non-fee-paying completions in all business-related programs was slightly more than 60 percent in 1998.

In common with the trends in banking and finance enrolments and student load, the composition of banking and finance courses has also changed. While participation of female undergraduates and postgraduates in banking and finance courses has increased, they are nonetheless much lower than those in most other business-related disciplines. Female students are particularly underrepresented in enrolments in research degrees at all levels. Enrolments by Aboriginal and Torres Strait Islander students have barely increased in relative terms, though this is consistent with the experience across many other business-related programs. Lastly, enrolments and completions by overseas and domestic fee-paying students have increased dramatically and at a much faster rate than other business-related studies. The situation now exists that less than forty percent of banking and finance completions are associated with non-fee paying students, compared with sixty percent across all business-related studies.

(3) Concluding Remarks

The preceding analysis of trends in Australian banking and finance enrolments and student load highlighted the emergence of several trends. First, both banking and finance enrolments and student load have displayed some of the highest growth rates of all business-related disciplines during the 1990s. While the closely related fields of accounting and economics have suffered a declining share of enrolments and load over the last decade, banking and finance has steadily risen, albeit from a relatively small base. This growth also appears to be more evenly spread across the Australian states and territories, in contrast to the experience in both accounting and economics where growth outside of NSW, Victoria and Queensland has generally been more moderate. Importantly, much of this growth has been in the form of fee-paying domestic and overseas students, a vital consideration in the ongoing revenue-raising capacity of this discipline.

However, there are also some disturbing trends. One of these is that female enrolment rates in banking and finance courses are very low, and there appears to have been little progress over the decade in increasing the participation rates of female students in research programs. This suggests that more research effort could be directed at examining the persistent gender bias in finance education. Another concern is that while the median enrolments of institutions offering banking and finance courses have steadily risen, the smallest twenty-five percent of institutions now enrol fewer students than a decade ago. Though the number of institutions offering banking and finance qualifications have steadily increased, there is also the prospect that institutions with relatively small enrolments may not be large enough for long-run sustainability. Finally, and in common with many of the 'newer' business-related disciplines, student load in banking and finance is almost totally dependent on enrolments in banking and finance courses, as against the position of economics and accounting. This indicates that banking and finance lacks the 'buffer' of these disciplines in the event of a decline in enrolments, and suggests that more should be done to widen the appeal of banking and finance units to students undertaking non-banking and finance courses.

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